

## D.C. BRUSHLESS VOICE-COIL MOTOR

### ABSTRACT

A D.C. brushless voice-coil motor is a miniature motor with a very small dimension.

- 5 It has conduction coils to serve as the stator of the motor and a magnetic element which has a plurality of magnetic poles located at the same plane to serve as the rotor to simplify the components needed in the motor for achieving the miniaturization requirements. The motor includes at least a circuit board, at least two conduction coils and a magnetic element. The induction coils are located on the circuit board for
- 10 generating magnetic force when receiving electric power and function as the stator of the motor. The magnetic element is located above the induction coils and has a plurality of co-plane magnetic poles to function as the rotor of the motor. Input electric power will generate inductive magnetic field, and under the interaction between the induction coils and magnetic element, the magnetic element will generate rotational kinetic energy.

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